

Bar Assn. Urges States Adopt Brain-Based Definition of Death

By EDWARD CHIASSON
Medical Tribune Staff

CHICAGO—The House of Delegates of the American Bar Association has approved a legal definition of death and recommended its enactment into law by state legislatures.

The A.B.A. definition says, "For all legal purposes, a human body with irreversible cessation of total brain function, according to usual and customary standards of medical practice, shall be considered dead."

Dr. McCarthy De Mere, a plastic surgeon and lawyer who is Director of the Institute of Legal Medicine at Memphis State University Law School and author of the A.B.A. definition, told MEDICAL TRIBUNE that he hoped it would settle some of the controversy arising from organ-transplantation and the use of sophisticated apparatus to sustain heartbeat and respiration in the absence of brain function.

1968 Definition Has Persisted

Until now, lawyers have had to depend on the 1968 edition of Black's Law Dictionary, which defined death as "the cessation of heartbeat. Legal death is still defined in 46 states according to traditional criteria of heartbeat and respiration; four states (Virginia, Kansas, California, and Maryland) have recognized "brain death" as an additional criterion, while 14 state legislatures are contemplating changes.

"Technological advances make a new definition urgent necessary," Dr. De Mere said. "The legal profession and the general public—especially relatives of the dying and dead—will be better off once it is in the books. So will the medical profession, I believe."

However, the A.M.A.'s House of Delegates is on record strongly opposing any statutory definition of death, on the grounds that physicians should be solely responsible for establishing criteria and making individual clinical determinations, and because criteria and methods may continue to change so fast that any new law may soon become obsolete.

"How can you tell what 'usual and customary' means in the A.B.A. definition?" Norman Juddich, A.M.A. staff attorney, asked in an interview with MEDICAL TRIBUNE. "Standards of medical practice are different from hospital to hospital, physician to physician. I think this definition, like any statutory definition, opens up more questions than it answers. And as you know, it's easier to write a law than repeal it."

Joint Meeting to Study Issue

Mr. Juddich said that the problem of defining death will be discussed at the next joint meeting of the National Conference of Representatives of the A.M.A.-A.B.A., and he expects the A.B.A. will be requested to consider withdrawing its proposal. Unless the A.B.A. agrees to do so, its definition will go to the Uniform Law Commission as the basis in drafting of a standard definition nation-wide. The Commission's members are appointed by each Governor, and charged with re-

commending laws to state legislatures. Dr. De Mere contends that the definition in no way restricts physicians or impinges on their rights and duties. "We were very careful to write a strictly legal definition, leaving to the doctor the job of making the medical determination," he said, referring to the A.B.A.'s special committee of lawyers, neurologists, neurosurgeons, and theologians.

"We also made sure to stipulate that cessation of brain function must be total—that is, not only cerebral death, as shown by flat E.E.G.s, but death of the brain stem as well, as evidenced by a series of neurological tests described in the Harvard criteria."

The "Harvard criteria" were drawn up in 1968 by several of the faculty of the Harvard Medical School in an attempt to modernize the determination of death. Among the criteria listed were absence of spontaneous breathing, falling arterial pressure in absence of drugs or other support, lack of reflex or response to a wide range of stimuli, and isoelectric electroencephalograms obtained over a twenty-four hour period from normocephalic, non-hypothermic patients. The official A.M.A. position, most recently stated last June, is that physicians, in using their best judgement to determine death, should be mindful of the Harvard criteria.

The A.M.A.'s displeasure with the A.B.A. move notwithstanding, some physicians have welcomed the idea of a legal definition of death.

Dr. Shelly Chois, Professor of Neurosurgery at the University of Minnesota Medical School told MEDICAL TRIBUNE, "But it is a step forward, it will make physicians more comfortable in determining death, especially in cases of transplant donors, and even

selling the patient's relatives. And in general, I say there was a rough consensus gradually developing among doctors anyway that irreversible brain damage is equivalent to death."

Dr. Samuel L. Kountz, Professor and Chairman of the Department of Surgery at Downstate Medical Center in New York, called the A.B.A. proposal "fantastically good." Dr. Kountz has performed kidney transplants and is active, with state senator Donald M. Halperin, in trying to amend New York law to recognize brain death.

"One problem is to educate the public and the medical profession, and I think laws like this are the best way," Dr. Kountz said. "A bigger, more ur-

gent problem is to clear up the terrible confusion and inhibitions about transplants. Many surgeons are afraid that they might be held into court over a technicality. The time for test cases and new laws is long overdue."

In a recent case at the Jacobi Hospital in New York City, doctors removed the kidneys from a young homicide victim who slumped into a bradycardia but whose heart had been kept beating mechanically. The removal of the kidneys, for purposes of transplantation, was performed with the consent of the patient's parents, but it was in defiance of state law, which defines death as the termination of heartbeat and respiration, and requires autopsy in homicide

cases.

The first step to a comparatively minor effort, was the experimental health service delivery system project.

The Ford Administration strongly supported the goals of the new program as the legislation underlying it moved through Congress last year. The Administration was worried by the country's costly surplus of hospital beds and other health facilities, and considered better planning necessary to hold down health care costs before enactment of any national health insurance legislation, which is expected to create new demand for health care and thus increase inflationary pressures on medical costs.

New Law Effective Jan. 4

Congress passed the National Health Planning and Resources Development Act of 1974 (PL 93-641) overwhelmingly, the Senate by 65 to 18 on November 25 and the House by 236 to 79 on December 13. President Ford signed the new law on January 4, and it became effective immediately.

Largely by default, the new statute was the most important piece of health legislation enacted last year. Other major health bills died in committee or conference or were pocket-vetoed.

Despite the warm endorsement given to the legislation by both Congress and the Administration, it has not won

the task of developing long-term health objectives for their areas, preparing and carrying out annual implementation plans, reviewing and approving or disapproving applications for Federal funds for health programs within the areas, and aiding statewide health planning agencies also established by the new law.

State agency activities will include

developing statewide health plans,

reviewing all capital expenditures for health facilities within the state,

determining the need for any new institutional health services, and reviewing the need for existing health facilities.

Beginning in fiscal 1980, the law prohibits Federal payments for health resources development to states that have

not satisfactorily established a state agency.

It is widely said that within a few months it will be appointed the director of a new health planning bureau to be split off from and become co-equal with the Bureau of Health Resources Development whose other main interest is the Federal health manpower program.

Both the local and state agencies are to be governed by councils. Three fifth of the local council members are to be health care consumers and the

New Drug Lethal to Warfarin-Resistant Rats



Rate resistant to warfarin, long the standard item against rodent infestations when mixed in bait stations with food, above, are appearing. A team of British investigators has found a new drug called difenacoum, which blocks the uptake of vitamin K, achieved complete control where all other poisons failed.

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Wednesday, April 9, 1975

MEDICAL TRIBUNE

\$1.013 Billion Program Launched

Health Services Planning Off to a Quiet Start

Fiscal 1976 Fiscal 1976 Fiscal 1977

Health systems agency planning grants	\$ 60	\$ 80	\$125
State agency grants	25	30	35
Demonstration grants for state			
rule regulation	4	5	6
Centers assisting planning agencies	6	8	10
Construction and modernization grants			
Area health services	125	130	135
development grants	25	75	120
	244	338	431

Expenditures (in millions of dollars) authorized in the \$1.013 billion health services planning program during its three-year statutory life.

charged that the state's provisions showed "a clear lack of public accountability."

Several Department of Health, Education, and Welfare officials who are familiar with the legislation do not like it either. One called it a "misnomer," and another asserted that "its overlapping of jurisdictions will only compound the confusion" that the entire comprehensive health planning program had produced.

Construction and modernization grants—the biggest single category in the program's budget—are to be allocated to the states on the basis of their population and need for medical facilities and money, but the states will be able to use their grants only for the conversion of existing facilities to outpatient care, the modernization or construction of current outpatient facilities, or the construction of new inpatient facilities in areas of recent population growth.

The first step to be accomplished in setting up the new program is the designation by the nation's governors of about 200 "health service areas" which with few exceptions will have populations of between 500,000 and 300,000 persons, will be integrated enough "for the effective planning and development of health services," and will have at least one center each providing "highly specialized" health care.

The governors have until May 3 to draw boundary lines, and HEW will be empowered to revise them if it wishes. The fourth, a comparatively minor effort, was the experimental health service delivery system project.

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After the health service areas have been defined and before the middle of next year, HEW is required to designate a private, nonprofit organization, unit of local government, or public regional planning body as "health systems agency" for each area. Each agency is to have at least five staff members, and current budget planning calls for one staff professional per 100,000 population.

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CLINICAL NEWS NOTE: "A significant problem with laparoscopic cauterization of the fallopian tubes has been the incidence of bowel burns. The development of the silicone rubber band approach eliminates this potentially catastrophic complication since the requirement for tubal occlusion has been eliminated." (Dr. Bae Yon, see page 1.)

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Acupuncture Pain Relief Indicated to Be Independent of Site of Needle Insertion

Medical Tribune World Service

WINNIPEG, MAN.—Preliminary results of a study of 91 acupuncture patients with chronic pain indicate that relief is not dependent on the site of needle insertion and that there is no more relief when the patients can look at the therapist than when they cannot.

Dr. Charles Godfrey, director of rehabilitation medicine, Wellesley Hospital, Toronto, reported these results to the annual meeting of the Royal College of Physicians and Surgeons of Canada.

A total of 82 per cent of the patients experienced noticeable relief, 69 per cent considerable relief, 61 per cent

siderable and lasting relief, and 30 per cent had their pain reduced "very significantly" to only 10 per cent of what it had been before, Dr. Godfrey said.

Pain Caused by Osteoarthritis

The patients, between 25 and 50 years old, had had chronic pain for more than three months and less than two years, the study showed. The pain was caused by osteoarthritis of elbows, shoulders, knees, or low back, Dr. Godfrey reported.

He and his colleagues found that there was as much relief from pain when the needles were inserted in other than classical sites. In fact, the thera-



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Medical Tribune

Sexual medicine today

Where
Whom
Whereto

don't miss next week's sexual medicine today

Santo Domingo gender puzzle: "At puberty . . . their voices gradually deepen, their muscles expand . . . their clitoral-like phallus becomes a functional penis and they express normal sexual interest in females."

Exclusive interview with Dr. Mary Calderone: The dynamic founder of the Sex Information and Education Council of the United States talks about the "great role" of physicians in establishing the "right to be sexual"; the problems of pornography; permissiveness; and the need to distinguish between sex education, sex counseling and sex-therapy. Part II

Establishing sex-therapy standards: What happens when sex therapists meet to discuss their problems—scientific, professional, ethical.

pist did not know the actual site of the patient's pain, Dr. Godfrey said.

Further studies are planned, Dr. Godfrey said.

Coauthors of the study were Drs. K. Livingston, I. MacNab, H. A. Smythe, R. MacDonald, H. Mihalkofsky, and E. Raudzens.

EDITORIAL CAPSULES

brief summaries of editorials and comments in current medical and scientific journals.

Acetaldehydeism?

"Prolonged, excessive use of alcohol (ethanol) is associated with alterations in structure and function of number of organs. These changes have given rise to controversy over the relative importance of a direct toxic effect of alcohol and the effects of nutritional deficiencies that are associated with chronic alcoholism. Recent evidence suggests that distaste for the liver, heart, and bone marrow, although aggravated and accelerated by nutritional deficiencies, are probably caused by cytotoxic actions of alcohol. The biochemical basis of this specificity is uncertain. . . . Korsten and colleagues suggest that acetaldehyde, a metabolite of ethanol and a potent cytotoxin, may contribute to the pathogenesis of these alcohol disorders.

". . . Korsten et al. have demonstrated the expected plateau of blood levels of acetaldehyde in the face of varying blood ethanol levels; they have also clearly established that patients with alcoholism can manifest this plateau at a higher level than nonalcoholic persons, confirming earlier, perhaps less rigorous, studies.^{1,2} This demonstration of higher blood levels of acetaldehyde in habitual drinkers made the dose-response requirement and effectively removes a constraint that had been imposed upon hypotheses of alcohol's toxicity. It has now become important to know much more about the metabolism of acetaldehyde and the characteristics of its cytotoxicity. (Editorial, *Ned H. Rakhi, M.D.*, *Am J Med*, 59:2, 422, Feb. 20, 1975)

Attitudes on Child Abuse

"The approach to the problem of child abuse seems to be going through the same evolutionary phases as characterized alcoholism treatment programs. Not too long ago, alcoholics who ran afoul of the law were placed in jail for a 'dry-out' period. Finally it was realized that this legal approach neither solved nor prevented the problem. . . . Today alcoholics are viewed as a disease, with psychological, social, financial, and medical implications.

"The approach to the treatment of child abuse is now in a transition period. We are getting away from a legal, punitive approach, in favor of a more comprehensive method of dealing with the problem. Ideally, with the eventual establishment of a nationwide system of child abuse centers, the entire gamut of the battered child syndrome, including its social, psychological, and medical aspects, will receive consideration in treatment programs. In addition, further research into the psychosocial aspects of this disease will help us reduce its incidence and tragic consequences through preventive measures." (Special article, Robert Woodworth, D.O., Oklahoma City, *Journal of the American Medical Association*, 237:274, Nov. 1977)

Wednesday, April 9, 1975

Medical Tribune

IN CONSULTATION

What's New and Important in Management of Heart Failure?



The Consultant

DR. JAY N. COHN

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University of Minnesota
Division of Cardiology
University of Minnesota Hospital
Minneapolis, Minn.*

MANAGEMENT of heart failure from all causes and of all degrees of severity has traditionally involved the administration of inotropic drugs (digoxin, or for more acute situations, sympathomimetic drugs) and diuretics. Recent studies have demonstrated the effectiveness of vasodilator drugs in improving left ventricular performance in patients with heart failure. Sodium nitroprusside administered intravenously has proved to be an effective agent for treating patients with severe heart failure complicating myocardial infarction, ischemic heart disease, cardiomyopathy or mitral insufficiency. This drug reduces the resistance (impedance) against which the left ventricle must eject by dilating peripheral arteries. Its effect on the failing heart is to increase stroke volume and cardiac output at the expense of a small reduction in arterial pressure. Such therapy also reduces the work of the left ventricle and its oxygen consumption. Whether sodium nitroprusside will be effective treatment for myocardial infarction by reducing myocardial ischemia and thus limiting infarct size is under study.

The application of long term vasodilator therapy for the treatment of chronic congestive heart failure is limited by the availability of potent, orally effective vasodilator drugs. Various nitrates are now being utilized for this purpose, but results of carefully controlled studies must be evaluated before their place can be established.

Please discuss the use of nitroglycerin in acute myocardial infarction.

Nitroglycerin has long been considered to be contraindicated in patients with acute myocardial infarction because of the risk of hypotension. It is now recognized that a nitroglycerin effect could be beneficial by reducing the work of the heart, improving its performance, and relieving ischemia in the peri-infarction zone. However, severe hypotension also could aggravate ischemia by reducing coronary blood flow. Administration of controlled amounts of nitroglycerin in order to produce only a slight fall in arterial pressure seems to be safe and may be beneficial. The problem with sublingual nitroglycerin is that the response to a standard dose may vary from patient to patient. Administration of the drug in ointment form to the skin may allow a little better control of dosage. Keeping the patient supine should reduce the risk of severe hypotension, but if nitroglycerin is to be employed in these patients it should be started in very low doses and titrated upward until the desired effect is attained without an inordinate fall in blood pressure. The most precise way to determine the "effective" dose is to monitor the pulmonary arterial pressure and to titrate to a 25 to 30 per



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Let Fiorinal help release the patient from the aching, pressing, painfully tight feeling of tension headache. Its analgesic components help relieve pain while its sedative component helps relax the patient.

ANALGESIC plus SEDATIVE

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Each tablet or capsule contains:
Sandoz® (butalbital) (Warning:
May be habit forming) 50 mg.;
caffeine, U.S.P., 40 mg.; aspirin,
U.S.P., 200 mg.; phenacetin,
U.S.P., 130 mg.

Indications: Based on a review of this drug by the National Acetylpromazine Study Group, National Research Council and other information, FDA has classified the indications as follows:

"Possibly effective in the treatment of tension headaches in which combined sedative and analgesic action is desired, such as, nervous tension and sleeplessness associated with tension headache. Final classification of the less-than-effective indications require further investigation."

Contraindications: Hypersensitivity to any of the components.

Precautions: In view of the sedative properties of butalbital, may be habit forming. Excessive or prolonged use should be avoided.

Side Effects: In rare instances, constipation, drowsiness, and skin rash may occur.

Adult Dosage: One to two tablets or capsules, repeated if necessary up to 5 per day, or as directed by physician.

Final classification of the less-than-effective indications require further investigation.

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CONSULTATION

Continued from page 5
fore shock, mechanical cardiac assistance should be considered.

What is the current status of intra-aortic balloon counterpulsation in cardiogenic shock in acute myocardial infarction?

Intra-aortic balloon counterpulsation is the most effective, reliable and practical means of improving cardiac function and myocardial metabolism when hypotensive shock has developed after acute myocardial infarction. The earlier this therapy is applied the more likely the progressive circulatory deterioration

of shock will be reversed. In most studies balloon assist has been instituted after medical therapy has apparently failed. The salvage rate in such patients has been quite low (less than 20 per cent). Some patients have been stabilized for a number of hours so that angiography and bypass surgery could be performed. Each of these interventions has resulted in some salvage of life, but even with the best medical and surgical therapy the prospect for the patient who has already developed shock is dismal. Nonetheless, when confronted with a potentially salvageable patient with cardiogenic shock the physician who has these rational, invasive modes of therapy available to him will want to apply them as quickly as possible. A more fruitful direction for research, however, would seem to be attempts to limit infarct size and pre-

Next In Consultation

DR. CLAUDE A. FRAZIER, M.D., F.A.C. of Asheville, N.C. Author of *Caring with Food Allergy*, published by Quadrangle Books, New York Times Publishing Co., New York; and *Inner Allergy*, published by Medical Examination Publishing Co. . . . will answer questions on food allergy and the role of emotional stress, when food allergy should be considered as an etiologic factor, use of a basic elimination diet, the current status of skin testing and desensitization, and the possible role of food additives as allergens.

vent the development of shock in patients with acute myocardial infarction who are at highest risk. A number of approaches are being evaluated.

Closed-Circuit Bingo



To stimulate morale of patients, closed-circuit TV bingo has been introduced at Outer Drive Hospital in Lincoln Park, Mich. Volunteers selected bingo letters on cameras above, while patients follow game in their rooms, below. The games are particularly valuable in relieving the depression of chronically ill patients.



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In patients with suspected or known allergy. Use with caution in otitis externa; avoid using in otitis media, pruritis, or other ear disease. Avoid use in children, or in persons with known dermatologic sensitivity or other allergic manifestations. Avoid undue exposure of large skin areas to the drops.

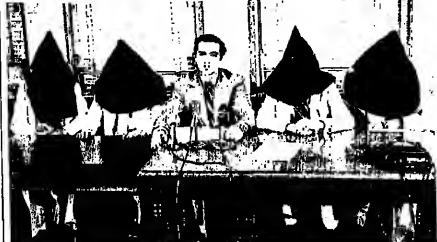
Adverse Reactions: Reported incidence in clinical studies is about 1%, ranging from mild erythema to severe allergic reaction. Avoid use in external ear and perauricular areas; all reported instances of reaction are to the drops; positive patch test. **Precautions:** Patch test.

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- Clears the ear prior to ear examination, otologic therapy or audiology.
- Safe to cerumenolytic action—excellent results reported in over 80% of 2,700 adult and pediatric patients.*
- Needs no repeated instillations for several days, unlike some other agents.

Indications: Removal of cerumen; removal of impacted cerumen prior to ear examination, otologic therapy or audiology. **Contraindications:** Previous unfavorable reaction to the drops; positive patch test. **Precautions:** Patch test.

Foreign-Educated Students Charge Blacklist



Wearing hoods to protect their identities, four white-coated medical students told a recent press conference in New York City that they have been "virtually blacklisted" by state medical facilities because they were trained in foreign medical schools. The students appeared at the request of State Assemblyman Charles E. Schumer (center), sponsor of a bill to guarantee foreign-educated state residents admission in clinical training programs at state schools.

Parotid Saliva Test Devised To Detect Pancreas Disease

Medical Tribune World Service

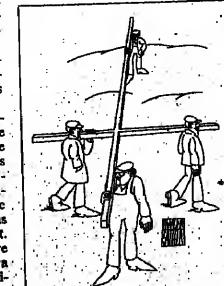
with biliary tract disease and one with duodenal cancer). Overall, the accuracy of the P-S test was 50 per cent and of the saliva test 90.9 per cent.

It was noted by Dr. Goro Kakizaki, of the Akita University School of Medicine, who developed the test, that in some cases where abnormally high salivary test values were found, the parotid glands were histologically hypertrophic and the patients had a long history of diabetes.

Histologic changes of the parotid glands were atrophic and degenerated in patients with hypofunction on salivary test and hypertrophic in those with salivary hyperfunction.

"At the moment," Dr. Kakizaki commented, "we do not know the precise mechanism by which parotid gland function is increased in these patients. Although there are several possible explanations, we are tempted to speculate that in the early stage of pancreatic disorders, parotid gland function is diminished and, conversely, comes to manifest hyperfunction as pancreatic damage progresses. . . . We think that this hyperfunction of the parotid gland might represent a compensatory mechanism for pancreatic dysfunction."

Collaborating in the studies were Drs. Takayuki Saito and Toyokichi Maeta.



Current Opinion

"Moratorium on Reckless Statements" and More Study of ADRs Urged

MEDICAL TRIBUNE presents a "Current Opinion" from Dr. David L. Farnsworth, Professor Emeritus of Harvard Medical School, and Chairman of the Board of Directors of Medicine in the Public Interest which recently published an important "Report on Adverse Drug Reactions." Highlights of the Report were presented in recent issues of MEDICAL TRIBUNE. Dr. Farnsworth's comments, which describe how the study came to be published, summarize the current opinion of many leading physicians on this critical problem.

This study of adverse drug reactions, released by Medicine in the Public Interest, a non-profit organization, was prepared by Drs. Fred Karch and Louis Lissagne of the University of Rochester School of Medicine and Dentistry. Their investigation concludes that no valid data exist to support widely circulated stories that scores of thousands of Americans are unnecessarily harmed or die because of side effects of modern medications and calls for "a moratorium on reckless statements and estimates."

The study was stimulated by Senator Edward M. Kennedy's interest in obtaining objective expert evaluation of the problem of adverse drug reactions. At the hearing of his Senate Health Subcommittee some of the testimony offered resulted in frightening newspaper stories which extrapolated estimates by non-researchers of 120,000 and in one instance 140,000 deaths. The Medicine in the Public Interest report, which had the benefit of consultation with American researchers whose data were used by others who made the exaggerated extrapolations, indicates that such projections are invalid and that considerable additional data is needed to define the problem and lay the basis for educational efforts.

Character of Most ADRs

As to severity and type of side effects, "the majority of reported ADRs are minor functional gastrointestinal disturbances, and together with rash, itching, drowsiness, insomnia, weakness, headache, tremulousness, muscle twitches and fever" account for 60 to 70 per cent of reported adverse drug reactions. "Interpretation of these data is impossible . . . especially since one or more of these same symptoms were found . . . in up to 84 per cent of healthy individuals taking no medications at all." The problem is further complicated in that many of the "symptoms reported before treatment and after placebo" are similar in those reported as adverse drug reactions.

Among those who participated in the study and who serve as consultants for this report were leading scientists whose data were invalidly extrapolated and whose statements have been expanded upon and used without their qualifications as well as some who have taken issue with prior estimates of the incidence of ADRs. Among the participants in the MAPI study were professors of medicine Leighton Claffey of the University of Florida and Alvin Feinstein of Yale; professors of medicine and pharmacology Daniel Azarnoff of Kansas University and Jan Koch-Weser of Harvard; chief of clinical pharmacology Kenneth Melmon of the University of California, and the professor of statistics Paul Meier of the University of Chicago.

The report also concluded that current estimates of frequency and cost of drug reactions cannot be derived from available data, that most reactions occur with older, time-tested important drugs such as digoxin, penicillin, and insulin; that most serious reactions occur in very sick patients who are being treated for fatal diseases; that most reactions are minor and cannot be differentiated from the same symptoms in healthy patients.

Some Conclusions

These conclusions were sharply defined in the words of the report:

- "Current estimates of the magnitude and cost of the adverse reaction problem are completely unreliable because [their] data base . . . is incomplete, unrepresentative, uncontrolled and not operationally identified." In the literature "one finds that the agents implicated in adverse drug reactions are not the newest drugs but such time-honored agents as digoxin, penicillin and insulin Most reported fatal reactions appear to be associated with 'older, standard drugs' In more than 75 per cent . . . the drug has been available in medical practice for more

years." We don't conclude from this that throat cultures are useless," Dr. Lotter told MEDICAL TRIBUNE. "Cultures taken from the tonsil crypts of an anesthetized child are more reliable than those from a small portion of the tonsil surface. All cultures may be diagnostically helpful when positive, though not absolutely reliable when negative."

The report by Karch and Lissagne also noted that it "profited from the criticism and suggestions from members of the Board of Trustees of Medicine in the Public Interest."

Dr. David L. Farnsworth, Professor Emeritus of Harvard University, is chairman of the Board of Trustees of MAPI. The board also includes Dr. Daniel X. Freedman, of the University of Chicago; Dr. George D. Gobin of Southern Methodist University; Dr. Louis Lissagne of the University of Rochester; Dr. Howard P. Rouse of the Mayo Clinic; Dr. Maurice H. Seeger of the University of Michigan; and Dr. Charles Zorzanoff, of the University of Michigan.

USSR-US Rapprochement in Cancer Pattern Seen



Prof. Nikolai Blokhin, director of the Institute of Experimental and Clinical Oncology in Moscow, as he attended a press conference sponsored by the American Cancer Society. Prof. Blokhin was in the United States to negotiate an agreement establishing a joint U.S.-U.S.S.R. cancer epidemiology program.

Continued from page 1

patterns. He said that stomach cancer still occupies first place in morbidity in both sexes in the Soviet Union, but after peaking at about 63 cases in men and 33.5 cases in women per 100,000 population around the beginning of 1966, it has now fallen to about 55.5 in men and 27.5 in women. Though he did not cite U.S. morbidity figures, Prof. Blokhin noted that mortality from stomach cancer has been declining steadily in the United States and that among American men it was overtaken by lung cancer as a cause of death in the early 1950s.

At the same time stomach cancer has been decreasing in the Soviet Union, that of the lung has been increasing rapidly among Soviet men and less dramatically but still steadily among women in the U.S.S.R. Among Soviet men the rate has increased by almost 10 cases per 100,000 population in the last decade, the epidemiologist said.

Breast Cancer Up, Cervical Down

Prof. Blokhin, who as director of the Institute of Experimental and Clinical Oncology in Moscow is the counterpart of the director of the National Cancer Institute here, said that the incidences of female cancers in his country were also growing more like those in the United States. Cervical cancer has declined from 26 to fewer than 20 cases per 100,000 since 1965 while breast cancer has jumped from 13.7 to 17.8 cases during the same period.

Though cancer morbidity has been showing striking upward and downward shifts in the Soviet Union in recent years, Prof. Blokhin said that mortality from malignant tumors had remained fairly stable, thanks to improved screening, diagnosis, and treatment. Among men it has remained almost even at about 163 cases per 100,000 since 1961, while among women it has declined from about 102 cases to around 96 per 100,000.

"The cancer morbidity situation is very complex in my country because of its great ethnic diversity," Prof. Blokhin said. "In the Soviet Union we have 15 Soviet republics; 28 autonomous re-

publics, 8 autonomous regions, and 10 national areas. The 1970 census showed that there were more than 100 different nationalities and ethnic groups.

"Much more than in the United States, I think, these groups have tended to keep their own customs and habits, and this has affected their cancer patterns."

Esophageal cancer in both sexes is most prevalent in the Soviet Union's Middle Eastern republics—Turkmenistan, Kazakhstan, Uzbekistan, Tadzhikistan, and Azerbaijan—"probably because the people there are fond of very hot tea and foods," according to Prof. Blokhin. Stomach cancer, on the other hand, is most prevalent in both sexes in the largest of the Soviet Union's components, the Russian Republic, and the Middle Eastern republics have greatly varying stomach cancer rates. And lung cancer is highest among men in the Baltic republic of Estonia, but among women in the Middle Eastern Republic of Kazakhstan.

Turning to the study of cancer distribution and incidence, Prof. Blokhin said that cancer epidemiology had developed in the Soviet Union only since World War II and particularly since the early 1950s. "Before that most of our work was in diagnosis and treatment, and much emphasis was placed on animal research," he said.

The Soviet Union's cancer surveillance network is based on slightly fewer than 300 "dispensaries" scattered throughout the country. Each dispensary comprises a central cancer hospital for the area it serves, a registry of cancer patients, an epidemiological and statistical group, and a screening unit. Though the dispensaries' primary responsibility is diagnosis and treatment, they are also charged with collecting oncologic data for their areas.

Each of the 15 constituent republics of the Soviet Union has an oncology institute to oversee the work of the dispensaries in its area, and many of the republic institutes have formal cancer epidemiology departments. A Central Institute of Oncology in Leningrad belonging to the Ministry of Health co-

ordinates cancer diagnosis and treatment throughout the Soviet Union. Prof. Blokhin's Institute in the Soviet capital, which is a unit of the U.S.S.R. Academy of Medicine rather than the Ministry of Health, is the Soviet Union's chief cancer research organization and as such coordinates oncologic studies throughout the country. Several centers with responsibility for the study of specific cancers nationwide, such as the stomach cancer unit at Vilnius, Lithuania, the breast cancer unit at Tallin, Estonia, or the gynecologic cancer unit at Tbilisi, Georgia, report to it.

The epidemiology agreement's most important provisions are for the compilation and publication of a joint monograph, a united breast cancer epidemiology study, and the exchange of epidemiologists between the two countries.

The monograph, to which investigators in each country will contribute half of the approximately 320 pages, will deal with epidemiologic methodology and cancer patterns in each country and will be published simultaneously in English in the United States and Russian in the Soviet Union. Prof. Blokhin predicted that it should be in draft form within a year, and translated and off the presses a year after that.

The breast cancer collaborative study is what American and Soviet researchers hope will be the first of several in cancer epidemiology, and details are to be worked out at a joint meeting later this year.

WHO Survey of 40 Countries Finds Wide Variation in Cancer Death Rates

Moscow Tribune World Service

Death rates from cancer per 100,000 population vary considerably around the world, according to a survey of 40 countries conducted by the World Health Organization in 1968-69.

Scotland led in annual deaths from cancers of all types in men with 205, Chile in deaths among women with 134. The lowest rates were registered in the Dominican Republic, with 36 for men and women, and the Philippines, with 45 for men and 40 for women. The American figures were 153 and 107 for men and women respectively, placing the U.S. 18th in the world in both categories.

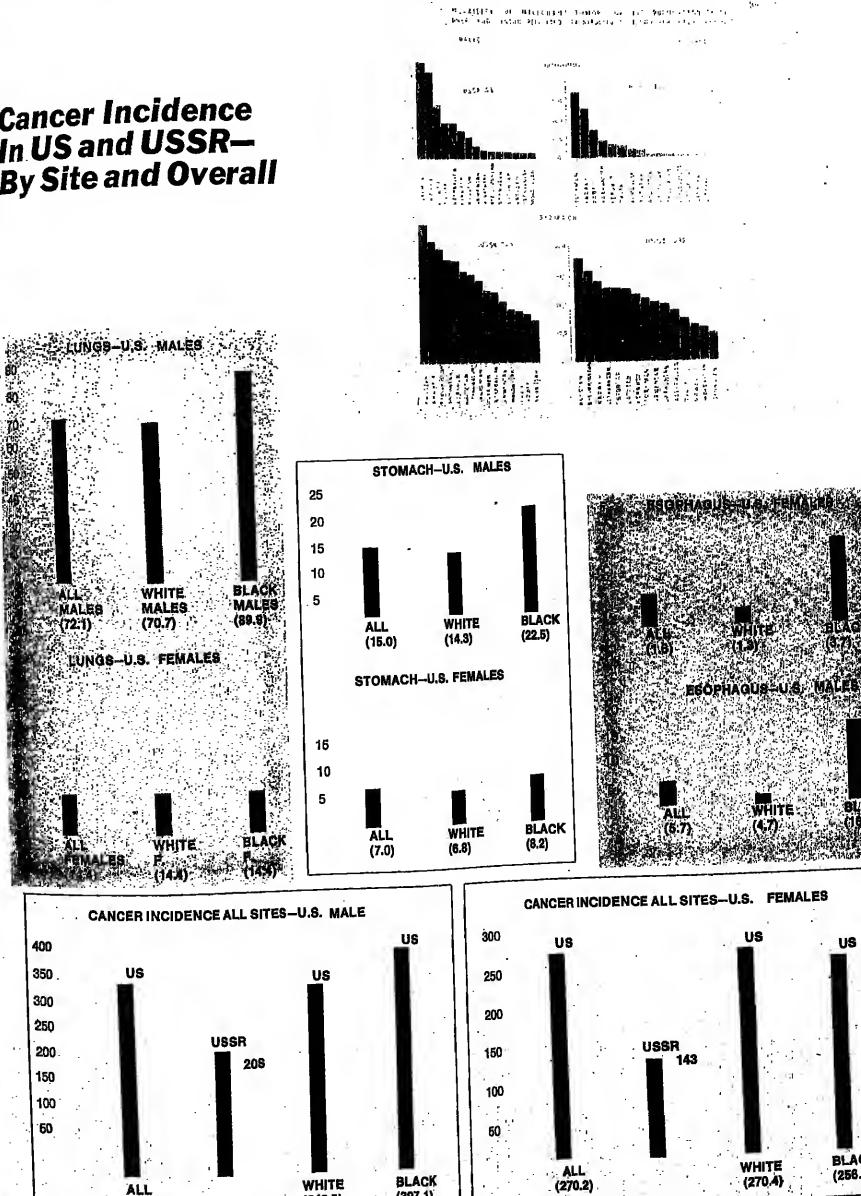
As a rule, the rate of cancer deaths among men in most countries was 30 to 60 per cent higher than for women. Only Iceland, Mexico, and Venezuela had the rate reported among

women marginally higher than for men.

Striking differences were also noted when death rates from cancer were broken down by affected organs. In the U.S., the rate of deaths among women from breast cancer was 22 per 100,000, while for Taiwan and Japan it was 3 and 4. But Japan ranked first in deaths from stomach cancer in men (66), second among women (34). The U.S., with an incidence of fatal stomach cancers among men of 7, and women 4 per 100,000, was ranked 38th and 39th.

The range in deaths, from highest to lowest, was much wider in lung cancer (80 among Scottish males compared with 2 among Filipino women) and uterine cancer (89 in Finland, 2 in Poland), than it was from leukemia (7 in Norwegian males, less than 1 in Mauritanian females).

Cancer Incidence In US and USSR—By Site and Overall



Cancer Incidence overall and by site, US-USSR compared. Annual rates per 100,000 U.S. Source: 3rd National Cancer Survey, National Cancer Institute, 1969-71. Figures are roughly, not absolutely comparable, because they are standardized against different populations, and age groups. The rationalized comparison is the work that is going on now at Bethesda and will go on for some time as translation etc. is carried out.

Prosthesis Corrects a Rare Aortic Stenosis

By SUE WYMELBURG
Special Tribune Correspondent

BOSTON—A prosthesis that corrects a rare form of congenital aortic stenosis has been developed by the cardiovascular research team at Children's Hospital Medical Center and Thermo Electron Corporation here.

Its successful use was briefly outlined by Dr. John F. Keane at the recent American College of Cardiology meeting in Houston and described more fully by Dr. C. Grant LaFarge at a press conference at the hospital.

The prognosis for diffuse aortic stenosis is a poor one because replacement of the aortic valve with a conventional prosthesis is not feasible when the annulus as well as the aorta is severely underdeveloped.

Patient Resumes Activities

Implanted in a 23-year-old man whose condition had been steadily worsening since his teens, he had been confined to a wheelchair for several years—a U-shaped shunt was interposed between the left ventricular apex and the descending thoracic aorta, bypassing the obstructed area.

The patient is now able to walk and climb stairs, and has resumed his education and some sports activities.

The prosthesis is composed of a Hancock Dacron graft, containing a pig aortic valve coupled to stainless steel tubing coated with polyurethane and lined with flocked polyester fibrils.

Different lengths of the tubing combined with flexible elbow joints make the device non-kinking but "highly adjustable," Dr. LaFarge said, "so that it



which in animal studies at the laboratory has proved compatible with blood flow for a long period of time.

Because the porcine valve had been preserved in glutaraldehyde, it is expected to maintain its flexibility for at least 10 years, the investigators said.

The Dacron portion of the shunt is anastomosed to the side of the aorta and the inflow end of the tubing is inserted into the apex of the left ventricle. The body of the prosthesis is sutured to the diaphragm for support and stability. The actual implantation in this patient took 45 minutes.

14 Patients Seen in 19 Years

The patient was one of 14 seen over a period of 19 years who had an obstruction above the aortic valve. Nine had a discrete area of stenosis which was relieved by enlarging the stenosed area with a Dacron patch.

In the remaining five, the hypoplasia was diffuse and involved the annulus and ascending aorta. Three patients died because it was impossible to repair the defect. A fifth patient is being evaluated to see whether the shunt can be applied.

Although this congenital abnormality is rare, Dr. LaFarge said that "conservatively speaking, there are at least 100 cases currently in medical centers.

In the United States, and some cardiologists put that figure between 300 and 500."

Dr. William F. Berthoud performed the surgery. Other members of the medical center's Cardiovascular Research Laboratory to develop an implantable mechanical blood pump, the metal surfaces in the shunt are coated with the Dacron fibrils because the investigators have found these encourage the growth of a fine layer of fibria and blood cells.

From there gradually develops a pseudo-endothelium of fibrocytes,

Drastic NY Malpractice Overhaul Proposed

Continued from page 1
chairman of the state medical society's subcommittee on Malpractice, told MEDICAL TRIBUNE.

The set of proposals approved by the society's House of Delegates and presented to Gov. Hugh Carey and the state legislature, was outlined by Dr. Patterson and Dr. John H. Carter, Clinical Professor of Surgery at Albany Medical Center and chairman of the legislative Committee of the Medical Society. It includes:

Jury System Replacement

• The creation of a "Patients' Indemnification Board" to replace the jury system in malpractice suits, and of "Hearing Panels" to give preliminary judgments on all actions and dismiss them if the panel votes unanimously that the action is "frivolous." The Board would be made up of four physicians, four lawyers, and four laymen, all appointed by the governor, while the panels, located in each of the state's judicial districts, would consist of one physician, one lawyer and one laymen.

• A stricter statute of limitations on malpractice liability. "Claims for birth injuries could only be brought until the patient was six years of age, instead of the present 21. Limitations on other claims would be dated from day of occurrence of alleged malpractice, rather than day of discovery, and in no case more than three years.

Physician, specifically the Committee on Professional Conduct of the State Board of Medicine. "We know there are some few doctors out there who should be disciplined—but we know that the Board of Regents," Dr. Patterson said. "But as matters stand now, it takes forever for a doctor to be suspended or have his license revoked. The machinery for dealing with malpractice is too slow and cumbersome. And all that physicians can do now is throw someone out of the medical society, which is worse than doing nothing."

Informed Consent Change

• Lack of "informed consent" to be abolished as grounds for malpractice claim, except in cosmetic and experimental procedures.

• Awards to be fixed by the Patients' Indemnification Board; and attorney's fees to be based on a sliding scale, with the percentage of the fee decreasing as the amount of the award increases.

Dr. Carter said he realized some of these proposals entailed major revision of law, and one—for the Indemnification Board—to replace juries—might be unpopular and require a Constitutional Amendment. But he said that the situation was so critical that "only radical changes would help."

"If we can clear away the emotionalism and publicity from the problem, substantial transfer of authority and responsibility for disciplining physicians from the state boards of education and Regents, to the medical pro-

fession, specifically the Committee on Professional Conduct of the State Board of Medicine. "We know there are some few doctors out there who should be disciplined—but we know that the Board of Regents," Dr. Patterson said. "But as matters stand now, it takes forever for a doctor to be suspended or have his license revoked. The machinery for dealing with malpractice is too slow and cumbersome. And all that physicians can do now is throw someone out of the medical society, which is worse than doing nothing."

He reiterated the Medical Society's opposition to both a joint underwriter's system pooling the resources of various private companies, which has passed the state senate, and a compulsory state insurance fund. "Neither would control costs," he maintained.

"Provided meaningful legislative change is achieved by passage of a good number of our proposals soon, we are prepared to insure ourselves. Our House of Delegates has already approved the formation of a mutual insurance company that would build its reserves from an initial assessment. It would be non-profit and would handle only malpractice. Of course, this would not prevent private companies from competing, once malpractice insurance becomes economically sensible again."

Clinical Trials



A simple and familiar ward scene: the confrontation the market has made itself into: ultimatum. Either it will set new records for the volume of shares traded per day, or it won't.

Before the market took off, the theory that the volume of daily trading determines the prices at which stocks are traded was just a theory. The move from under 600 on the Dow to over 750 has transformed this calculation into a condition. The volume needs to keep the market moving is readily reducible to a count. The dividing line between hope and fear is delineated by the volume level of 25,000,000 shares traded per day.

Not even 35,000,000-share days are any longer enough for sustained advances.

Expectation is the mother of market performance. Surprises are the catalyst of big moves. But the present Wall Street focus on the volume needs of the 1975 rally is making a well-hedged and open-minded provision for a surprise in either direction.

The market-makers will be surprised to see the trading pace stepped up to 40,000,000 shares a day; they would be even more surprised to find that held these. But they would not be surprised to see the Dow Jones Average lead the rest of the market back to and even through the magic mark of 1,000 on such sustained volume.

The same pragmatic test now counts the 35,000,000-share volume level as unlikely to sustain either prices or volume. If figures show a slowdown under 25,000,000 shares is probable. And from being surprised by another price slump following a volume slowdown, the market-makers rate this slowdown a cinch.

and streamline and rationalize the legal machinery, we just may be able to hold the line on cost and even bring them down. If we can't control costs, there's not much hope."

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TRIBUNE SPORTS REPORT

Better Records Urged to Arm Team MDs for Legal Battles

MEDICAL TRIBUNE Report

the player initials it. Otherwise, the history is updated.

"I mark everything down," Dr. Ippolito said. "Bad or good, I mark it down. If a man has gonorhea, that's marked down, and the players know that. Nothing is left out. This does take hours and hours, keeping these records up to date, but you've got to do it."

Careful records are also kept of medications and any inward reactions.

Transfer of Records

Each player signs an agreement that if he leaves the Browns, his medical records may be transferred, Dr. Ippolito said.

In the future he would like to do end-of-season stress testing on all the players, not just the older ones.

He is continuing sickle cell anemia testing, "although I don't think you ever see true sickle cell anemia in a professional athlete." Many players carry the trait, however, and this is important information for them to have should they marry someone who also has the trait. Dr. Ippolito pointed out.

All team physicians should also perform much more thorough physical examinations than many have been doing, he advised. On the Browns, as a start, every player undergoes an examination that is "the most complete in all of professional sports," he said. It includes an SMA-12, pulmonary function studies, x-rays, and in the case of some of the older players, stress testing. No player is allowed to go out on the field for the first practice until all of these tests are checked out.

You find some of these big football players would like to skip the blood tests, but we don't let them," said Dr. Ippolito. "Each player gets a card telling him what studies are to be done and where to go, and each section of that card must be okayed. We've got a team of 27 people assembled, including physicians, nurses, and technicians, and we get 50 players done in four hours. That includes the coaches and the trainers. We do some of the physicals on the Sunday and the rest on the next Sunday."

If this is the player's first exam, he gets a complete history taken and

Flail Chest Treatment



A new treatment for flail chest caused by multiple fractures of the ribs or sternum has been developed by Dr. J. Kent Trinkle, of the University of Texas. It is said to reduce marshmallows, complications, and hospitalization. Animal studies showed that chest wall instability is usually a major part of the respiratory defect. The major problem is understanding pulmonary contusion. Above, x-ray of a 23-year-old woman auto accident victim who had bilateral hemopneumothorax with 12 rib fractures and bilateral flail chest. She was treated with thoracostomy tubes, fluid restriction, diuretics, methylprednisolone and maintenance of blood volume with whole blood and plasma instead of tracheal intubation and mechanical ventilation.

Survival With Totally Artificial Heart Raised to 94 Days in Calf Experiment

MEDICAL TRIBUNE Report

REMAINING limitations, Dr. Kolff said, are localized thrombosis within the blood chambers and infection along the percutaneous tubes and wires into the mediastinum.

Dr. Kolff said his laboratory is moving from work with air-driven hearts with simple design and external power sources to the development of electrically and atomically driven hearts.

"We have already implanted the blood pump of the atomic heart and driven it with an electric motor for 100 hours," he said. "In the spring we hope to perform a two-stage operation. The second stage would be the replacement of the temporary electric motor with a permanent nuclear device."

IMMATERIA MEDICA

The Joy of Alex

Dr. Alexander Thiosian, of the medical advisory department of Lederle Laboratories has called our attention to the table of contents of the October *Journal of the American Geriatrics Society*, where this line reads:

Sexuality in Old Age. A. Comfort. It's things like that that always prompt us to refer to sexologist A. Comfort as Dr. Alex.

Hot Dogging It

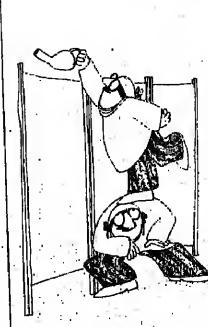
Our skiing friends have been telling us that when a skier comes down the jump slope and does a somersault, a backflip, or whatever in midair, he's "hotdogging" it.

But Peter Albertson, who is one of MEDICAL TRIBUNE's special correspondents, has just sent us, from American College of Cardiologists' meeting in Houston, Tex., a paper with the following sentence in the lead paragraph underlined:

"To determine if the left ventricle itself is altered independent of coronary vascular disease, young beagles were smoked for up to 22 months."

Now that's real hotdogging.

Clinical Cliche



"We ran urines on six patients."

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